

**Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services**

**STATEMENT OF BASIS**

**Dynamic Industries, Inc.  
West Yard Facility  
New Iberia, Iberia Parish, Louisiana  
Agency Interest Number: 43704  
Activity Number: PER20060001  
Proposed Permit Number: 1260-00119-V1**

**I. APPLICANT**

**Company:**  
Dynamic Industries, Inc.  
3508 Curtis Lane, New Iberia, LA 70562

**Facility:**  
West Yard Facility  
6005 Port Rd  
New Iberia, Iberia Parish, Louisiana  
Approximate UTM coordinates are 610.682 kilometers East and 3311.922 kilometers North, Zone 15

**II. FACILITY AND CURRENT PERMIT STATUS**

Dynamic Industries, Inc.'s (Dynamic Industries) West Yard Facility constructs mid-size to large structures used in oilfield exploration and production operations. The equipment includes offshore drilling systems, subsea production systems and land and platform completion systems. Typical activities performed onsite include cutting and welding of raw metal, structure assembly, metal fabrication, sandblasting, painting and related support activities. The main sources of air emissions include Volatile Organic Compounds (VOCs) from painting and solvent cleanup operations and bulk liquid storage tank, Nitrogen Oxide compounds (NO<sub>x</sub>) emissions from combustion engines, bulk liquid storage tanks and Particulate Matter (PM<sub>10</sub>) from painting and sandblasting.

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### **III. PROPOSED PROJECT/PERMIT INFORMATION**

#### **Application**

A permit application and Emission Inventory Questionnaire were submitted by Dynamic Industries, Inc. dated July 25, 2006 requesting a Part 70 operating permit renewal and modification. Additional information dated August 25, 2008, November 17, 2008 January 5, 2009, April 8, 2009, and April 13, 2009 was also received.

#### **Project**

Dynamic Industries, Inc. proposes the following modifications:

- 1) Increase the amount of paints, solvents, thinners and abrasive blasting material being used.
- 2) Delete Diesel Compressor Engines, Sources (A.C.-1, A.C.-2, A.C.-3 and A.C.-4)
- 3) Consolidate all onsite diesel engines into one source (DE-01)
- 4) Delete Bead Blasting Machine, Source (Bead)
- 5) Delete Gasoline Tank, Source (Tank 1)
- 6) Delete Thinner Tank, Source (Tank 2)
- 7) Separate Emission Point PA-01 (Paints and Thinners) into two sources: PA-01, Paints, and TH-01, Thinners.
- 8) Change Cleaning Solvent Emissions Source ID (Clean) to Source ID SO-01.
- 9) Change Sandblasting Emissions Source ID (Sand) to Abrasive Blasting, Source (AB-01)
- 10) Remove gallon restrictions on paint, solvent and thinners and place a CAP on Total Volatile Organic Carbon (VOCs) for facility and Total Toxic Air Pollutants (TAPs) as listed in requested specific conditions of this permit application.

#### **Proposed Permit**

Permit 1260-00119-V1 will be the renewal and modification of Part 70 Operating permit 1260-00119-V0 for the West Yard Facility.

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**Permitted Air Emissions**

Estimated emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM <sub>10</sub>	24.28	14.16	- 10.12
SO <sub>2</sub>	2.88	6.47	+ 3.59
NO <sub>x</sub>	43.64	102.95	+ 59.31
CO	9.56	28.17	+ 18.61
VOC *	67.47	125.46	+ 57.99

**\*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):**

Pollutant	Before	After	Change
Ethyl benzene	1.310	7.130	+ 5.820
Methanol	17.830	5.000	- 12.830
Benzene	0.008	0.193	+ 0.185
Naphthalene	0.0	2.000	+ 2.000
Methyl ethyl ketone	1.760	5.033	+ 3.273
Methyl isobutyl ketone	0.220	5.000	+ 4.780
Toluene	18.854	15.034	- 3.82
Xylene	5.274	18.898	+ 13.624
N-butyl alcohol	0.310	5.351	+ 5.041
Glycol ethers	0.0	5.000	+ 5.000
Acetaldehyde	0.0	0.005	+ 0.005
Formaldehyde	0.012	0.034	+ 0.022
N-hexane	0.0	0.032	+ 0.032
Total	45.578	68.710	+ 23.132

**Other VOC (TPY):** 56.75

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LAC 33:III Chapter 51 Non-VOC Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
Zinc	0.450	2.000	+ 1.550
Chromium VI	0.0	0.009	+ 0.009
Manganese	0.0	0.995	+ 0.995
Nickel	0.0	0.080	+ 0.080
Copper	0.0	0.002	+ 0.002
Total	0.450	3.086	+ 2.636

#### **IV REGULATORY ANALYSIS**

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

**Prevention of Significant Deterioration/Nonattainment Review**

Prevention of Significant Deterioration does not apply to the West Yard Facility because Criteria Pollutants are below the 250 tons per year threshold. Facility is not in a nonattainment area.

**Streamlined Equipment Leak Monitoring Program**

NA

**MACT Requirements**

For LAC 33:III.Chapter 51 Class I and II TAPs, Dynamic Industries must comply with the applicable provisions of the National Emissions Standards for Organic Hazardous Air Pollutants, 40 CFR 63 Subpart M MMM Miscellaneous Metal Parts Surface Coating and perform Good Housekeeping Practices as Maximum Achievable Control Technology (MACT) under LAC 33:III 5109.A. For Class II TAPs, Dynamic Industries shall substitute non-TAPs, preferable non-VOC, whenever possible.

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**Air Quality Analysis**

Dispersion Model Used: AERMOD

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard {NAAQS})
NOx	Annual Average	88.28 $\mu\text{g}/\text{m}^3$	100 $\mu\text{g}/\text{m}^3$
Zinc	8 hour	85.50 $\mu\text{g}/\text{m}^3$	119 $\mu\text{g}/\text{m}^3$
Chromium	Annual Average	0.008 $\mu\text{g}/\text{m}^3$	0.01 $\mu\text{g}/\text{m}^3$
Manganese	8 hour	4.16 $\mu\text{g}/\text{m}^3$	4.76 $\mu\text{g}/\text{m}^3$
Nickel	Annual Average	0.20 $\mu\text{g}/\text{m}^3$	0.21 $\mu\text{g}/\text{m}^3$
Napthalene	8 hour	85.51 $\mu\text{g}/\text{m}^3$	1190 $\mu\text{g}/\text{m}^3$
Xylene	8 hour	834.63 $\mu\text{g}/\text{m}^3$	10,300 $\mu\text{g}/\text{m}^3$
n-butyl alcohol	8 hour	480.09 $\mu\text{g}/\text{m}^3$	3620 $\mu\text{g}/\text{m}^3$
Glycol Ethers	8 hour	49.19 $\mu\text{g}/\text{m}^3$	571 $\mu\text{g}/\text{m}^3$
Acetaldehyde	8 hour	669.76 $\mu\text{g}/\text{m}^3$	4290 $\mu\text{g}/\text{m}^3$
	Annual Average	17.58 $\mu\text{g}/\text{m}^3$	45.50 $\mu\text{g}/\text{m}^3$

**General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

**Insignificant Activities**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

**V. PERMIT SHIELD**

A permit shield under 40 CFR 60.6(f) and LAC 33:III.507.I has not been requested for this action.

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**VI. PERIODIC MONITORING**

The West Yard Facility shall monitor emissions of Total VOCs and Total Toxic air pollutants (TAPs) by technically sound method monthly. These emissions shall be calculated using the quantities of each type of the applied paint, solvent, and thinner in connection with the data from the corresponding MSDS sheet as documented in the application. Noncompliance with this limitation is a reportable violation of the permit.

The West Yard Facility shall keep records of the emissions of total VOCs and Toxic air pollutants (TAP) by electronic or hard copy monthly. Keep records of the total VOC and TAP emissions each month, as well as the total emissions for the last twelve months. Make records available for inspection by DEQ personnel. The West Yard Facility shall also keep records of the quantity of paints, solvents, and thinners by electronic or hard copy daily. Keep records of the total paints, solvents, and thinners used each month, as well as the total usage for the last twelve months. Make records available for inspection by DEQ personnel.

The West Yard Facility shall submit a report, due annually, by the 31st of March. Report the total VOC and TAP emissions for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division.

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## **VII. GLOSSARY**

**Carbon Monoxide (CO)** – A colorless, odorless gas, which is an oxide of carbon.

**Maximum Achievable Control Technology (MACT)** – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

**Hydrogen Sulfide (H<sub>2</sub>S)** – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

**New Source Review (NSR)** – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

**Nitrogen Oxides (NO<sub>x</sub>)** – Compounds whose molecules consist of nitrogen and oxygen.

**Organic Compound** – Any compound of carbon and another element. Examples: Methane (CH<sub>4</sub>), Ethane (C<sub>2</sub>H<sub>6</sub>), Carbon Disulfide (CS<sub>2</sub>)

**Part 70 Operating Permit** – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

**PM<sub>10</sub>** – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

**Potential to Emit (PTE)** – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

**Prevention of Significant Deterioration (PSD)** – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air

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Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO<sub>2</sub>) – An oxide of sulfur.

Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.